

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)



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Applicant's or agent's file reference 5FPO-01-03	<b>FOR FURTHER ACTION</b>		See Form PCT/IPEA/416
International application No. <b>PCT/KR2005/000283</b>	International filing date(day/month/year) <b>31 JANUARY 2005 (31.01.2005)</b>	Priority date (day/month/year) 31 JANUARY 2004 (31.01.2004)	
International Patent Classification (IPC) or national classification and IPC  <b>A61K 36/54(2006.01)i, A61K 36/72(2006.01)i, A61P 39/06(2006.01)i, A61P 1/16(2006.01)i, A61P 13/12(2006.01)i</b>			
Applicant  <b>KIM, Kiyoung</b>			

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>31</u> sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____ containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>	
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>	

Date of submission of the demand  <b>18 AUGUST 2005 (18.08.2005)</b>	Date of completion of this report  20 APRIL 2006 (20.04.2006)
Name and mailing address of the IPEA/KR  Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea Facsimile No. 82-42-472-7140	Authorized officer  YEO, Ho Sup  Telephone No. 82-42-481-5627 

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/KR2005/000283

## Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☒ This report is based on translations from the original language into the following language English, which is the language of a translation furnished for the purposes of:
    - ☐ international search (under Rules 12.3 and 23.1(b))
    - ☒ publication of the international application (under Rule 12.4)
    - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
  - ☐ the international application as originally filed/furnished
  - ☒ the description:
    - pages 2-7, 15-16, 20, 22-23, 26, 29, 31 as originally filed/furnished
    - pages\* 1, 8-14, 17-19, 21, 24-25, 27-28, 30, 32-42 received by this Authority on 14/04/2006
    - pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
  - ☒ the claims:
    - pages \_\_\_\_\_ as originally filed/furnished
    - pages\* \_\_\_\_\_ as amended (together with any statement) under Article 19
    - pages\* 43-45 received by this Authority on 14/04/2006
    - pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
  - ☐ the drawings:
    - pages \_\_\_\_\_ as originally filed/furnished
    - pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
    - pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
  - ☐ the sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.
3. ☒ The amendments have resulted in the cancellation of:
  - ☐ the description, pages \_\_\_\_\_
  - ☒ the claims, Nos. 1, 5, 9
  - ☐ the drawings, sheets \_\_\_\_\_
  - ☐ the sequence listing (*specify*): \_\_\_\_\_
  - ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
  - ☐ the description, pages \_\_\_\_\_
  - ☐ the claims, Nos. \_\_\_\_\_
  - ☐ the drawings, sheets \_\_\_\_\_
  - ☐ the sequence listing (*specify*): \_\_\_\_\_
  - ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/KR2005/000283

**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

## 1. Statement

Novelty (N)	Claims	2-4, 6-8, 10-16	YES
	Claims		NO
Inventive step (IS)	Claims	2-4, 6-8, 10-16	YES
	Claims		NO
Industrial applicability (IA)	Claims	2-4, 6-8, 10-16	YES
	Claims		NO

## 2. Citations and explanations (Rule 70.7)

The present invention relates to a composition not only for anti-oxidation and anti-fibrosis but also for the improvement of liver and kidney functions, comprising a water extract of *Lindera obtusiloba*, *Hovenia dulcis* or herbal mixture thereof as an active ingredient.

The following documents have been considered for the purpose of this report :

D1 = KR 2002-0076980 A (11. 10. 2002)

D2 = WO 03/059369 A1 (24. 07. 2003)

D1 states that the water extract of *Hovenia dulcis* has an anti-oxidative activity.

D2 states that the lower alcohol-insoluble extract of *Hovenia dulcis* has a hepatoprotective activity and is useful for preventing or treating the liver disease such as hepatitis or liver cirrhosis.

Claims 2; 6, 10 and 14 relate to a composition not only for anti-oxidation and anti-fibrosis but also for the improvement of liver and kidney functions, comprising a water extract of *Lindera obtusiloba* as an active ingredient.

Claim 13 relates to a composition for improving kidney function, comprising a water extract of *Hovenia dulcis* as an active ingredient.

(Continued on Supplemental Sheet.)

**Supplemental Box**

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

Box V.

Claims 2, 6, 10, 13 and 14 meet the criteria set out in PCT Article 33(2)–(3), because the prior art does not teach or fairly suggest the claimed composition having the above-mentioned pharmacological effects:

On the other hand, claims 3, 4, 7, 8, 11, 12, 15 and 16 relate to a composition not only for anti-oxidation and anti-fibrosis but also for the improvement of liver and kidney functions, comprising a water extract of mixture of *Lindera obtusiloba* and *Hovenia dulcis* as an active ingredient.

Even though the cited documents D1 and D2 are relevant to the present invention, they do not refer to an extract of *Lindera obtusiloba*.

Moreover, the applicant has supplied data showing that an extract of mixture of *Lindera obtusiloba* and *Hovenia dulcis* has an improved pharmacological effect, compared with an extract of *Hovenia dulcis*.

As a consequence, claims 2–4, 6–8 and 10–16 meet the criteria set out in PCT Article 33(2)–(4).